

# Exhibit 10



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/970,221	11/14/97	MO	B 17732-722600

MM91/1205  
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EXAMINER

JACKSON JR, J

ART UNIT

PAPER NUMBER

2815

DATE MAILED:

12/05/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

**Office Action Summary**

Application No. 970221	Applicant(s) MO
Examiner 98	Group Art Unit 2.875

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

**Status**

- ☒ Responsive to communication(s) filed on 7/7/00
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

- ☒ Claim(s) 1, 2, 5-12, 14-22, 46-55 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1, 2, 5-12, 14-22, 46-55 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

**Application Papers**

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119 (a)-(d)**

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_

**Attachment(s)**

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 2, 8, 12, 14, 21 ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other \_\_\_\_\_

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 50,53-55, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitations "wherein the relative depths...are controlled to eliminate the need for any layers..." are vague and indefinite of exact structure. What is the exact structure determined by "controlled..." ?

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1,2,6,8-11,46-53,55, as best understood, are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hshieh '543.

The previous rejection still applies.

6. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hshieh '543 in view of Darwish '725.

In regard to claim 7 which recites a lower doped p region above the heavy body region, '725 shows a similar structure where p region 116 is above lower heavy doped p+ region 114 to allow better operation of the transistor. Similar structure would have been obvious for the '543 structure to allow better FET operation and contact.

7. Claims 1,2,5-12,14-22,46-55, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hshieh '543 with Darwish '725, applicant's prior art admissions, Nakamura '491, Bencuya'324, and Harada '050.

Harada additionally teaches a termination structure including a deep well connected to body regions. It would have been obvious to have practiced the same with Hshieh to have improved breakdown voltage. The previous rejection with the above comments applies.

8. Applicant's arguments filed 5 September 2000 have been fully considered but they are not persuasive. Applicant's argument that Hshieh does not disclose an "abrupt" junction is unpersuasive. The junction in Hsieh is abrupt. There are no particularly claimed dopant concentrations which would structurally distinguish applicant's "abrupt" junctions over the "abrupt" junctions of the applied art. Accordingly "abrupt" is merely a label which does not

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structurally distinguish applicant's claims over the applied art. Likewise the functional language in the claims or arguments do not structurally distinguish the claims over the applied art. In addition, the process arguments are unconvincing because the final structure claimed does not distinguish over the prior art applied regardless of how made. Arguments regarding a "buried layer" in Hsieh are not convincing of patentability because the claims do not structurally distinguish over Hsieh regardless of whether Hsieh's layers are labeled "buried" or not.

Arguments regarding commercial success are unconvincing of patentability over the applied art.

Arguments regarding "controlled" are unconvincing of patentability because the claimed structure does not functionally or structurally distinguish over the applied art.

Arguments regarding the field termination structure are unconvincing because Bencuya column 4 lines 62-65 teach deeper well regions 44,46, than body regions 80 of the active transistor and Harada likewise teaches and suggests deep well region termination structure which is connected to the body regions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Jackson whose telephone number is (703) 308-4937. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

  
Jerome Jackson, Jr.  
Primary Examiner